UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,028	08/23/2000	Chris Rygaard	1010722-991101	1587

26181	7590	06/29/2006

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EXAMINER
JACKSON, JENISE E

ART UNIT	PAPER NUMBER
2131	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/645,028	RYGAARD ET AL.
Office Action Summary	Examiner	Art Unit
	Jenise E. Jackson	2131

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-43* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-41* is/are rejected.

7)☒ Claim(s) *42-43* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 21-41 are rejected under 35 U.S.C. 102(a) as being anticipated by Jansen et al.

NIST Special Publication 800-19-Mobile Agent Security.

3.   As per claim 21, Jansen teaches a server, in communication with a first host and a second

host(see top of pg. 19, lines 1-3), the first and second hosts executing a mobile application that

jumps from the first host to the second host during execution, where during the jump from the

first host to the second host the mobile application and passes through the server(see pg. 19), the

server storing, prior to a jump to the second host, a first instance of the mobile application, an

instance of the mobile application including executable code for the mobile application, this is

taught in Jansen because Jansen teaches, storing, at a centralized security enforcement node,

prior to jump to a receiving host from a dispatching host(see pg. 2, 2nd paragraph teaches Mobile

agents(MA)hopping from peer to peer, see fig. 1 also teaches centralized security and

dispatching host), the server receiving from the first host, during the jump to the second host, a

second instance of the mobile application, and the server detecting unwanted changes in contents

of the mobile application including comparing the first and second instances(see Section, 2.1.2,

3.2, pg. 9 and 4.2.2).

4.   As per claim 22, Jansen teaches wherein the contents are one or more from the group containing code, state data and itinerary data(see pg. 17, section 4.1.4, pg. 21, 4.2.2).

5.   As per claim 23, Jansen teaches wherein the server detects unwanted changes responsive to receiving the mobile application from an untrusted host(see pg. 6, section 2.3.4, 3.2).

6.   As per claim 24, Jansen teaches wherein the server stores the first instance of the mobile application responsive to the mobile application being received from a trusted host(see section 3.2, pg. 9, and 4.2.2).

7.   As per claim 25, Jansen teaches wherein the first instance includes a first checksum and the second instance includes a second checksum(see section 3.3, pg. 10-11, section 4, pg. 13).

8.   As per claim 26, Jansen teaches wherein the first instance includes a copy of the mobile application as it existed prior to the jump and the second instance includes a copy of the mobile application as it existed during the jump(see section, 2.1.2, 3.2, pg. 9 and 4.2.2).

9.   As per claim 27, Jansen teaches wherein the server forwards the mobile application to the second host(see pg. 19).

10.   As per claims 28, 35, Jansen teaches a centralized method for verifying integrity of a jumping mobile application at a location other than a dispatching host or a receiving host(see pg. 19), storing, prior to a jump and at a server, a first instance of a mobile application that jumps from a first host to a second host during execution, an instance of the mobile application including executable code for the mobile application; receiving, during the jump and at the server, a second instance of the mobile application(see pg. 2, and section 2.1.2, 4.2.2); and detecting unwanted changes in contents of the mobile application including the server comparing the first and second instances(see section 3.2).

11.   As per claim 29, it is rejected under the same basis as claim 22.

12.   As per claim 30, Jansen teaches wherein detecting unwanted changes includes detecting unwanted changes responsive to receiving the mobile application from an untrusted host(see pg. 15-17, section 3.2, 4.2.2).

13.   As per claim 31, Jansen teaches wherein storing includes storing the first instance of the mobile application responsive to the mobile application being received from a trusted host(see pg. 2, section 2.1.2, 4.2.2).

14.   As per claim 32, it is rejected under the same basis as claim 25.

15.   As per claim 33, it is rejected under the same basis as claim 26.

16.   As per claims 34, 41, it is rejected under the same basis as claim 27.

17.   As per claim 37, it is rejected under the same basis as claim 30.

18.   As per claim 38, it is rejected under the same basis as claim 31.

19.   As per claim 39, it is rejected under the same basis as claim 25.

20.   As per claim 40, it is rejected under the same basis as claim 26.

21.   As per claim 42-43 are allowable for the features of, "when the first host is determined as being allowed to inject code, retrieve the code from the first host and send the code to the mobile application". In the prior art of security nor networking discloses inject code in the mobile application. Prior art discloses the mobile application jumping to another host or application, but does not disclose injecting code.

Response to Amendment

22.   The Applicant states that Jansen does not disclose the server storing, prior to a jump to the second host, a first instance of the mobile application. The Examiner disagrees with the

Applicant. Jansen discloses a path histories is a scheme for allowing an agent's itinerary to be recorded and tracked(see pg. 21). When moving between agent platforms, and agent conveys the last platform, current platform, and the next platform(see pg. 19). A record is maintained and inconsistencies are noted(see pg. 21). The Examiner asserts that the last platform is the first instance, and the current platform is the platform the current mobile application is at, and the second instance is the next platform.

23.   The Applicant states that Jansen does not teach "the central computer further includes means for monitoring the security of the mobile application as it jumps between the host computers wherein when the mobile application is communicated from a first host to a second host, it passes through the central computer" as set forth in the claim. The Examiner disagrees with the Applicant, Jansen teaches that the Jumping beans agent system addressed security issues by implementing a client-server architecture, whereby an agent always returns to a secure central host before moving onto any other platform(see pg. 19).

24.   The Applicant states that Jansen does not teach that a central computer stores a copy of a mobile application and then compares it to the mobile application after execution by another host. The Examiner disagrees with the Applicant. Jansen teaches this, because Jansen teaches protecting against modification of code, i.e. comparing the original to the one received and section 4.2.2 Mutual Itinerary Recording teaches tracking and comparing the Itinerary list as it traverses the peers-Since Jansen teaches both central and distributed Central host(see pg. 19), this reads on using one stored copy for comparison purposes. The Applicant states that executable code is not taught. The Examiner asserts that the system and method of Jansen is being taught as being used on a computer thus executable code is taught.

25.   The Applicant states that Jansen does not disclose the security monitoring means for detecting unwanted changes in the code associated with the mobile application when the mobile application is jumping between hosts. The Examiner disagrees since Jansen teaches a central host allowing tampering to be detected and prevented from accepting agents/code from someone not defined as a trusted (see pg. 22).

26.   The Applicant states that Jansen does not disclose the central computer detects unwanted changes in the code associated with the mobile application when the mobile application is jumping between hosts. The Examiner disagrees since Jansen teaches a secure central host which is interpreted as being capable of providing central security(see pg. 19). Further, Jansen discloses that a digital signature is included into the code, if the digital signature can verified than the agent has not been tampered with, if it cannot be verified that it has been tampered with(see pg. 16, 18).

Final Action

27.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

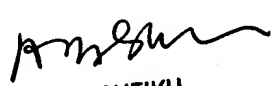date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jenise E. Jackson whose telephone number is (571) 272-3791.

The examiner can normally be reached on M-Th (6:00 a.m. - 3:30 p.m.) alternate Friday's.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 22, 2006

AYAZ SHEIKH
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